```java
public class LouisianaEconomicQuarterly {

  public static void main(String[] args) {

    String louisiana = "\033[1mLouisiana\033[0m";

    System.out.println
          (louisiana + " on the digital map");
```

Higher Education
Partnerships Drive
Technology Workforce

The Future Of
Cybersecurity

Secure Data Storage With
Louisiana's Premier
Data Center Firm

inside EQ

letter from
Secretary Moret

When global IT leader CSC selected Louisiana for an 800-job, next-generation technology center, the early 2014 announcement marked an inflection point for the state's emergence in the technology world.

On the heels of such digital media and software wins as Electronic Arts, Gameloft, GE Capital and IBM, the CSC project firmly placed the National Cyber Research Park in Bossier City on the technology map.

In this issue of *EQ*, we share how Louisiana's distinct advantages – from creative talent to university partnerships, groundbreaking incentives and more – attracted CSC to the state while continuing to attract others.

We'll look at a number of software and technology firms experiencing success in the state. Digital Forensics Solutions in New Orleans performs cybersecurity work for clients on a national stage. Also in New Orleans, Federated Sample is thriving with robust online sampling and research services via Fulcrum software. In Baton Rouge and Bossier City, Venyu offers cloud hosting, backup disaster recovery and more features assuring the security and redundancy of data.

A key Louisiana technology advantage we'll visit is education. The University of New Orleans offers cybersecurity training through its Information Assurance curriculum, one of many Louisiana programs providing technology leadership. Across Louisiana, state universities are partnering with technology companies to increase the annual production of computer science graduates threefold or more, ensuring a highly skilled workforce.

Finally, we'll visit with Mike De Boer, the GE Capital Technology Center New Orleans chief information officer, about unique Louisiana advantages that contributed to his team's success here.

As you enjoy this latest issue of *EQ*, I thank you for your continued interest in Louisiana – America's new frontier for business opportunity.

Stephen Moret, Secretary
Louisiana Economic Development

EQ

Louisiana
On The
Digital Map
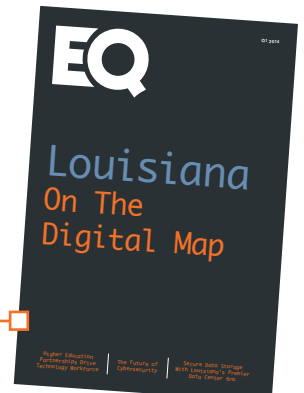
Decoding The Cover:

ECONOMIC UPDATE

LOUISIANA'S ECONOMY — Q1 2014

BANKING

Total bank equity capital of Louisiana's 141 FDIC-insured reporting institutions was up **32.7 PERCENT** since January 2008, compared to the nation's growth of 24.2 percent. Total assets grew **22 PERCENT** since 2008, compared to the nation's 14.3 percent growth.

32.7% INCREASE

22% INCREASE

EMPLOYMENT

Louisiana's employment levels have **OUTPERFORMED** both the South and the nation since 2008.

Louisiana had **1.2 PERCENT MORE JOBS** in March 2014 than it had in January 2008, compared to the slight 0.6 percent gain by the South and the 0.3 percent employment loss by the U.S.

Total non-farm, seasonally-adjusted employment (100 = January 2008)

- LOUISIANA
- SOUTH
- UNITED STATES

2008 2009 2010 2011 2012 2013 2014

RANKINGS

NO.3 IN THE U.S.

NO.1 IN THE SOUTH
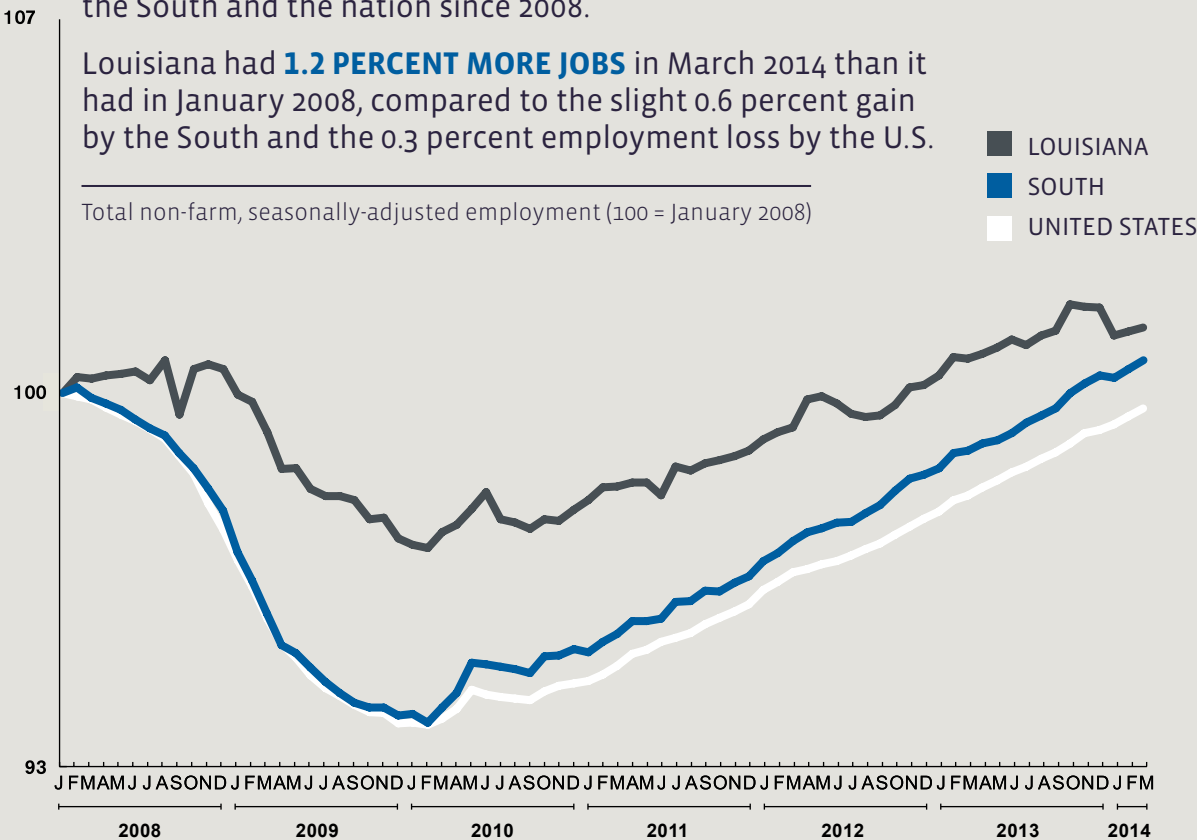
2 CORPORATE INVESTMENT & COMMUNITY IMPACT **AWARDS**

Site Selection magazine ranked Louisiana **No. 3** in the U.S. and **No. 1** in the South in its annual Governor's Cup for states that gained the most new and expanded corporate facilities on a per-capita basis.

Louisiana received **TWO CORPORATE INVESTMENT AND COMMUNITY IMPACT AWARDS** for 2013 business development projects: IBM and Gulf Coast Spinning.

UNEMPLOYMENT

March 2014 marked the **25TH CONSECUTIVE QUARTER** since January 2008 that Louisiana outperformed both the South and the U.S. with respect to the unemployment rate.

Louisiana's unemployment rate has remained below that of the U.S. and the South since the start of the national recession.

■ LOUISIANA
■ SOUTH
□ UNITED STATES

Unemployment Rate
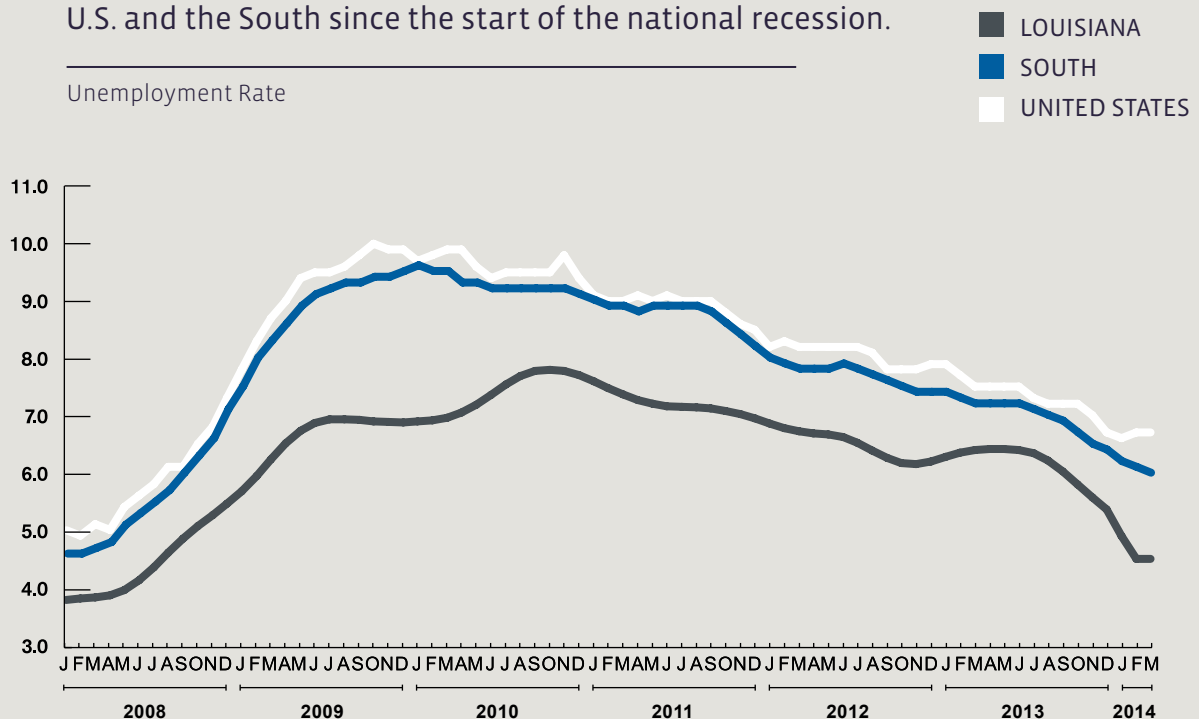
FRONT–LINE FORENSICS

NEW ORLEANS FIRM BATTLES CYBERSECURITY FOES

As businesses lean more heavily on technology, digital forensics specialists are filling an essential investigative role. The digital branch of forensic science encompasses the recovery and investigation of material found in digital devices — often in relation to computer crime, but including threats to virtually any kind of digital device.

A pioneer in the field, New Orleans-based Digital Forensics Solutions (DFS) works on a national stage, performing vital security work for customers in the hospitality, health care, government, financial, energy and education sectors.

In 2009, DFS received a U.S. Department of Justice grant to create a tool called Registry Decoder, which was nominated for Computer Forensic

In a civil litigation case, DFS investigated an intellectual property theft and bankruptcy claim. The company was able to identify undisclosed bank accounts and other critical evidence that resulted in a settlement of the case.

"The average person doesn't realize that hacks, malware and attempted breaches are regular occurrences every day," Pfeif said.

Pfeif spent two decades working for other technology businesses, including 10 years in Seattle at one of the nation's leading interactive companies. Recruited to work for an early-stage technology firm in Louisiana, she then went on to form DFS. Today, she is very impressed by the talent level coming out of the University of New Orleans (UNO) forensics program.

DIGITAL FORENSICS SOLUTIONS WORKS ON A NATIONAL STAGE, PERFORMING VITAL SECURITY WORK FOR CUSTOMERS IN THE HOSPITALITY, HEALTH CARE, GOVERNMENT, FINANCIAL, ENERGY AND EDUCATION SECTORS.

Software Tool of the Year in the 2012 Forensic 4cast Awards. The company then received two of 20 coveted Cyber Fast Track grants awarded by the U.S. Department of Defense to cyber security professionals that help the government fight an ever-increasing number of critical new hacks taking place.

"While we do work for government agencies, we also help other companies protect financial info, such as credit cards, personal information like Social Security numbers, and health information like patient records," DFS founder and CEO Daryl Pfeif said.

Recently, a conglomerate in the hospitality industry detected malware on a machine in its network. DFS reverse-engineered the malware and was able to determine no confidential data had been exposed or withdrawn, saving the client an extensive amount of money and embarrassment.

"I've hired a majority of my employees from the UNO Information Assurance program and I'm glad I've been able to provide jobs locally," she said. "These people could have moved to big firms in the Beltway, but now they have the ability to do work that interests them here in New Orleans."

Pfeif said Louisiana's support of technology firms has helped grow her business. She earned digital media tax credits from the state, which enabled her to further invest in her company, attract better talent and pursue more federal funding. Business costs in Louisiana are significantly lower than in the Beltway or Silicon Valley, she said, as is the cost of living.

"Having lived all over the world, Louisiana is an outstanding place to work and live," she said. "People are genuine and helpful. Culturally, I have to choose from 20 fabulous things to do during my time off. I am a living testimony to the state's attention and devotion to fostering technology. I was imported, then converted and can envision the rest of my life here." **EQ**

DIGITAL ASSURANCE

UNIVERSITY OF NEW ORLEANS ESTABLISHES PRESTIGIOUS COMPUTER FORENSICS PROGRAM

In the past decade, Golden G. Richard III has witnessed a remarkable maturity in the computer security and digital forensics community in New Orleans, where a dedicated community of professionals is pushing the technology discipline to new heights.

As director of the Greater New Orleans Center for Information Assurance at the University of New Orleans (UNO), Professor Richard is proud of the curriculum he and collaborating professor Vassil Roussev created in 2002 and shaped into one of the most respected programs of its kind in the nation.

Information assurance (IA) entails the practice of managing risks related to the use, processing, storage and transmission of information and data. IA focuses on understanding threats to computer systems, such as viruses and computer criminals, and on formulating and deploying solutions to protect cyberspace. Information assurance encompasses work in operating systems, cryptography, penetration testing, reverse engineering, digital forensics and social engineering.

"We have created a rigorous program at UNO," Richard said. "It is designated as a National Center of Academic Excellence in Information Assurance Education and Research by the National Security Agency and the Department of Homeland Security."

Richard said graduates of the program are well-prepared to step into real-world digital forensics jobs, many of which are located in New Orleans or other parts of Louisiana as the state's technology sector continues to grow.

"UNO has traditionally drawn many of its students from the greater New Orleans area," he said. "With more and more technology companies in Louisiana like GE Capital and Geocent, or IBM in Baton Rouge, our local graduates are finding jobs here. In fact, we are starting to see students actually relocate to New Orleans from out-of-state to enroll in the program."

While some IA graduates go to work for computer security companies or large businesses with an internal IT department, Richard said many are opening their own small businesses. As the technology sector grows and salaries increase, New Orleans is finding it easier to recruit talent from the Beltway, California and other traditional tech hot spots. Richard said UNO's decade-plus commitment to information assurance has created

a thriving computer security community in New Orleans that continues to grow.

"Over a year ago, the local security community created a meetup called NOLASEC," he said. "We have almost 100 members and hold monthly meetings, where interesting topics in information security can be presented and discussed."

Richard hopes to continue growing the cybersecurity community in New Orleans by expanding the information assurance curriculum and attracting students from Louisiana and beyond.

"There is a lot of excitement around the courses right now," he said. "We look forward to continued investment by the state in technology while we continue to pursue federal research funding. I think we have a very bright future ahead of us." **EQ**

INFORMATION ASSURANCE
AN OVERVIEW

The following courses are part of UNO's Information Assurance curriculum:

Computer Security Basics
understanding vulnerabilities, attacks and defenses

Digital Forensics
investigation of information stored on digital devices, including computer systems, mobile phones and legal issues

Reverse Engineering
malware analysis (taking apart malicious software, such as computer viruses, to understand how they work, how to remediate damage they may have caused and how to detect them in the future)

Penetration Testing
proactive measures to try to compromise networks in a controlled way and to reveal vulnerabilities that can then be patched or remediated

Offensive Tactics Against Operating Systems
processes to understand how operating systems can be compromised and what can be done to make them more resilient

MOMENTUM >>>
LOUISIANA

CSC
800 NEW DIRECT JOBS,
$39 MILLION ANNUAL PAYROLL

In February 2014, CSC announced the selection of Bossier City for the establishment of a 116,000-square-foot, next-generation technology center that will employ 800 professionals within four years. Louisiana Economic Development estimates the project will result in another 805 new indirect jobs. CSC will be the anchor tenant of the 3,000-acre National Cyber Research Park in Bossier City. The company's technology center is the result of an innovative, public-private partnership that will include expanded higher education programs and build a next-generation workforce in cloud computing, cybersecurity, big data and application modernization. The State of Louisiana will provide $14 million in funding over 10 years for expanded higher education programs designed to increase the number of annual graduates in computer science and related fields, with at least 65 percent of those funds to be provided for the expansion of such programs at Louisiana Tech University. Louisiana Economic Development offered

CSC a customized incentive package that includes a $9.6 million performance-based grant to reimburse relocation and recruitment expenses related to the project. CSC will receive the services of LED FastStart® and is expected to utilize Louisiana's Digital Interactive Media and Software Development Incentive as well as the Quality Jobs Program.

"As we transform our company into a next-generation IT services provider, we are committed to developing a next-generation workforce skilled in cloud computing, cybersecurity and big data technologies. The special public-private partnership with the State of Louisiana, Louisiana Tech and Bossier Parish Community College provides a strong platform for building a recruiting pool for our company and anchoring the development of a new technology corridor."

DAVE ZOLET
Executive Vice President and General Manager of CSC

FIBREBOND CORP.
225 NEW DIRECT JOBS (470 RETAINED),
$36,000 AVG. SALARY,
$2.5 MILLION CAPITAL INVESTMENT

Fibrebond announced in February 2014 the expansion of its precast concrete shelter business by acquiring a dormant container mill next to its existing manufacturing site. The company will invest $2.5 million to renovate a 180,000-square-foot forest products mill once operated by International Paper and Temple-Inland. In addition to the 225 new direct jobs that will be created, Louisiana Economic Development estimates the expansion will result in 235 new indirect jobs. Louisiana offered the company a $1 million performance-based grant to offset redevelopment costs at the acquired facility, with the grant to be provided at an annual rate of $200,000 over five years. The company also will receive the services of LED FastStart and is expected to utilize the state's Quality Jobs and Industrial Tax Exemption programs.

"As we considered this expansion, the State of Louisiana displayed the same aggressive and entrepreneurial spirit that has built this business. They have committed substantial resources to this project and have partnered with us to help shape our future as a Louisiana business."

TODD WALKER
President and CEO of Fibrebond Corp.

WESTLAKE CHEMICAL
70 NEW DIRECT JOBS (75 RETAINED), $425 MILLION CAPITAL INVESTMENT

In February 2014, Westlake Chemical completed a $425 million chlor-alkali plant that will create 70 new direct jobs in Geismar. Louisiana Economic Development estimates the project will result in an additional 384 new indirect jobs. The expansion provides Westlake with a key feedstock material for the company's adjacent vinyl chloride monomer and polyvinyl chloride plant in Geismar. The chlor-alkali plant will feature 350,000 tons per year of chlorine capacity and 385,000 tons per year of caustic soda capacity in support of its manufacturing operations in Ascension Parish. The State of Louisiana assisted Westlake Chemical in securing $89 million in GO Zone Bond financing for the project, which constituted a portion of the $425 million capital investment. In addition, Westlake will utilize the state's Quality Jobs and Industrial Tax Exemption programs.

"The new facility is adjacent to the existing facilities and the construction of this new plant is consistent with our vertical integration strategy, and will allow the company to continue to expand and optimize its vinyls chain. Additionally, we have enjoyed a long and rewarding relationship with Louisiana since our company's inception in Lake Charles in 1986."

ALBERT CHAO
President and CEO of Westlake Chemical

INTERNATIONAL SHIPHOLDING CORP.
100 NEW DIRECT JOBS, $70,000 AVG. SALARY

In February 2014, International Shipholding announced the company will relocate its corporate headquarters from Mobile, Alabama, to New Orleans, where the business was founded in 1947. In addition to 100 new direct jobs, Louisiana Economic Development estimates the project will result in an additional 113 new indirect jobs. With a diversified fleet of 50 cargo vessels, the company provides brokerage, logistics and other maritime services for a broad array of customers, including the U.S. Department of Defense, the U.S. Department of Agriculture, International Paper, Dow, The Mosaic Company and more. Louisiana offered the company a competitive incentive package including performance-based grants of $5.17 million to offset costs of establishing the new headquarters facility in New Orleans and $5.1 million to reimburse relocation costs associated with International Shipholding's move. In addition, the company will receive the workforce solutions of LED FastStart.

"We are pleased to be returning to New Orleans, where the Mississippi River once again plays an important strategic role for our company. We are excited to be returning at a time when the city has made significant progress in its recovery. We further believe we will be better-positioned in New Orleans to take advantage of transportation opportunities from the significant industrial investment being made in the state."

ERIK L. JOHNSEN
President of International Shipholding Corp.

LUBRICATION TECHNOLOGIES INC.
75 NEW DIRECT JOBS,
$41,400 AVG. SALARY,
$16 MILLION CAPITAL INVESTMENT

Lubrication Technologies announced in February 2014 a $16 million capital investment to renovate a manufacturing facility in Shreveport, where the company will manufacture lubricants and related fluids for power sports, marine and outdoor equipment markets. Along with 75 new direct jobs, the project will result in an estimated 205 new indirect jobs. Also known as Lube-Tech®, the company's Louisiana manufacturing center will enable it to better serve key domestic customers in the South and be in close proximity to its supply sources. Louisiana offered the company a performance-based Economic Development Loan Program incentive of $750,000 and the comprehensive workforce solutions of LED FastStart. In addition, the company is expected to utilize the state's Quality Jobs and Industrial Tax Exemption programs.

"We were pleased with Louisiana Economic Development's help in finding a location, providing relocation funding, and assisting with employee recruitment and training. Louisiana Economic Development representatives proactively identified solutions to challenges in an entrepreneurial spirit that reflects our company culture."

CHRIS BAME
CEO of Lubrication Technologies Inc.

CREST INDUSTRIES
90 NEW DIRECT JOBS (559 RETAINED), $53,000 AVG. SALARY,
$2.3 MILLION CAPITAL INVESTMENT

In January 2014, Crest Industries announced it will invest $2.3 million to construct a new office building at the company's headquarters in Pineville. The expansion will accommodate a growing staff with 22,500 additional square feet of office space and will be the fifth building at Crest's headquarters campus. In addition to 90 new direct jobs, Louisiana Economic Development estimates the project will result in an additional 105 indirect jobs while retaining 559 existing company jobs in Louisiana. The expansion follows Crest's November 2013 announcement of a new $15 million galvanizing plant in Tangipahoa Parish.

"Crest Industries' roots are in Louisiana, and we are excited to be a part of building the local economy by locating our latest expansion in Pineville. We want to create quality jobs employing local workers and graduates and continue building freedom and prosperity in our communities."

KENNY ROBISON
CEO of Crest Industries

MID SOUTH EXTRUSION
12 NEW DIRECT JOBS (130 RETAINED), $4 MILLION CAPITAL INVESTMENT

In January 2014, Mid South Extrusion announced the creation of a ninth production line at its facility in Monroe, expanding its production of plastic film for industrial applications. Mid South manufactures and produces both low- and high-density polyethylene barrier films, as well as linear low-density polyethylene. The new manufacturing line will allow the company to boost capacity in pounds produced per year by up to 16 percent. Louisiana Economic Development offered a customized incentive package that includes a $200,000 Modernization Tax Credit. The company is also expected to utilize the state's Enterprise Zone and Industrial Tax Exemption programs.

"Large investment decisions are difficult for most companies and can often be complicated by federal and state regulatory issues, but considering the business-friendly climate our state offers, I am proud we can call Louisiana our home."

RON MASON
President and Chief Operating Officer of Mid South Extrusion

DANOS
100 NEW JOBS (400 RETAINED), $23.2 MILLION CAPITAL INVESTMENT

Danos announced in February 2014 the selection of the Port of Iberia for a new 172,000-square-foot manufacturing facility that will create 100 new direct jobs. The facility represents a key portion of a larger expansion announced in May 2013 — the building of a new Gray headquarters facility for Danos. Together, the facilities represent a capital investment of $40 million, with 426 new direct jobs to be created over the next five years. At the Port of Iberia site, Danos will build offshore-bound production modules, as well as structural and process piping products for the oil and gas industry. To secure the headquarters and manufacturing project, the state offered Danos a performance-based, $1.5 million Economic Development Award Program grant to provide infrastructure improvements for the new manufacturing location. The State of Louisiana will provide the comprehensive workforce solutions of LED FastStart, and Danos is expected to utilize Louisiana's Quality Jobs and Industrial Tax Exemption programs.

"We looked across the Gulf Coast and found a site close to home in New Iberia with the right infrastructure and a talented workforce. This new Danos facility will allow us to continue to build on a long legacy of partnering with major oil and gas operators to solve complex energy challenges."

ERIC DANOS
Executive Vice President of Danos

danos
PRODUCING CONFIDENCE

PERFORMANCE SOFTWARE CORP.
58 NEW DIRECT JOBS, $75,000 AVG. SALARY

In February 2014, Performance Software Corp. announced a new
software development project by the company in New Orleans.
The site will create 58 new direct jobs, and Louisiana Economic
Development estimates another 59 new indirect jobs will result.
Phoenix-based Performance Software specializes in the avionics and
defense industries. In New Orleans, the company also will develop
new business in the energy and health care industries. To secure the
project, Louisiana offered the company use of the Digital Interactive
Media and Software Development Incentive and comprehensive
workforce solutions from LED FastStart.

"Having top talent is critical to our continued growth in these areas,
and expanding outside of Phoenix with regional offices helps us
grow that talent base. We have successfully opened regional offices
in other states, and we find that bringing jobs to these high-technology centers is a win-win. It's a win for the local
high-tech economy by expanding its employment base and a win for Performance Software by giving us local access to
the best talent coming out of local engineering colleges."

TIM BIGELOW
CEO of Performance Software Corp.

IT MINERALS LLC
12 NEW DIRECT JOBS, $34,000 AVG. SALARY,
$4.5 MILLION CAPITAL INVESTMENT

In February 2014, IT Minerals announced a $4.5 million capital
investment to establish an importing, processing and exporting
facility at the Port of New Orleans for minerals sourced from Mexico
and other countries. The project will create 12 new direct jobs and
result in an estimated 28 new indirect jobs. The company will ship
raw materials from igneous rock quarries in north central Mexico
by rail to Louisiana. The project will provide a processing and
shipment point that initially will serve U.S. markets, followed by the
Caribbean and the Central and South American markets. IT Minerals
products are used in multiple industries as a lightweight aggregate
or as a stabilizing filler. In New Orleans, natural gas processing will
heat and reform the minerals for different applications. The State
of Louisiana assisted IT Minerals in securing the site, and the
company is expected to utilize Louisiana's Quality Jobs and
Industrial Tax Exemption programs.

"As we explored our options for setting up our new facility, we
found one that offered all the conveniences we were looking for:
energy, logistics, land and a friendly business environment. We
had to look no further — the Port of New Orleans offered all we
were looking for with the best attitude ever. We are sure that our
investment in the area will continue to grow in the future."

**JOSE DOMENE**
CEO of IT Minerals LLC

INTEGRICO COMPOSITES INC.
300 NEW DIRECT JOBS,
$35,000 AVG. SALARY,
$20 MILLION CAPITAL INVESTMENT

In March 2014, IntegriCo Composites announced it will move its corporate headquarters from Temple, Texas, to a 178,000-square-foot industrial site near Springhill, where the company will make a $20 million capital investment. IntegriCo, which converts recycled plastics into composite rail ties, crossings and other transportation products, will create 300 new direct jobs. Louisiana Economic Development estimates the project also will result in 339 new indirect jobs. To secure the project, Louisiana offered performance-based incentives of $2.5 million from the state's Economic Development Award Program and $2.5 million in Capital Outlay funding for public infrastructure improvements. IntegriCo also will receive the comprehensive workforce solutions of LED FastStart and is expected to utilize Louisiana's Quality Jobs Program.

"IntegriCo's decision, following a thorough review of more than 30 facilities throughout six states, hinged on the partnership displayed by the State of Louisiana, its economic development teams and the local parish to create the framework for successful job creation and associated economic growth."

SCOTT MACK
President and CEO of IntegriCo Composites Inc.
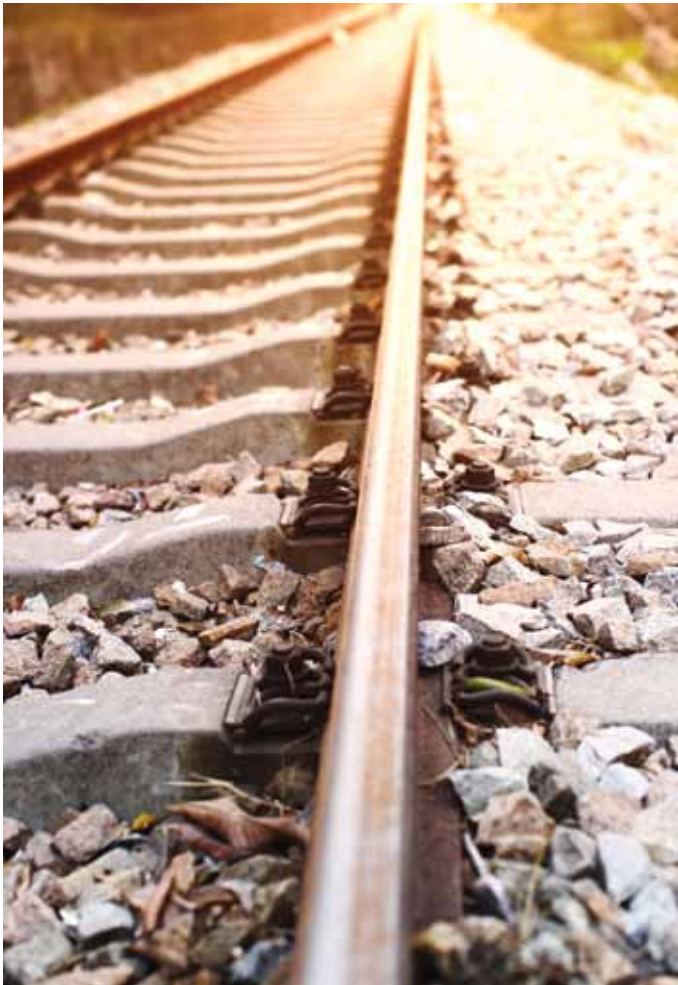
ENVOC
16 NEW DIRECT JOBS,
243% REVENUE INCREASE

Envoc provides software, mobile and Web development and design services, as well as branding, management and hosting services. The company began working with the Louisiana Small Business Development Center network in 2010 and with Louisiana Economic Development's Economic Gardening Initiative in 2013. Through these programs, Envoc received assistance with strategic market analysis, keyword niche research, adjacent markets research and LinkedIn strategy. With this assistance, Envoc has been able to add 16 new jobs and increase its revenue 243 percent since 2010.

"The Economic Gardening team identified adjacent markets we had never considered for BubbleVision, our image-based, standardized grading software for schools. This was in addition to identifying over 300 prospects for BubbleVision, a competitor analysis and a social media strategy — and saved us thousands in market research."

CALVIN FABRE
Founder and President of Envoc

SEARCHING FOR CYBER SAFETY

GROWING WIRELESS NETWORK DRIVES $120 BILLION INDUSTRY

An increasingly wireless world has made it possible to check home thermostats and lock doors from a distance. But as more daily business takes place over wireless systems, hackers have more ways to gain access to personal data.

Michael Daniel, White House cybersecurity coordinator, describes cyber attacks as the "new normal."

Proofpoint, a California cybersecurity firm, reported in January that hackers had infiltrated as many as 100,000 Web-connected consumer devices and home appliances — including televisions and at least one refrigerator — to generate 1 million malicious email attacks.

Those reports followed the theft of personal data from as many as 70 million Target customers during the 2013 holiday-shopping season.

An increasingly wireless world has made it possible to check home thermostats and lock doors from a distance. But as more daily business takes place over wireless systems, hackers have more ways to gain access to personal data.

And privacy may not be the only thing in danger. A June 2013 U.S. Food and Drug Administration advisory urged makers of health care devices to take additional measures to safeguard their products after receiving reports of malicious software — or malware — on hospital laptops, tablets and other wireless devices containing patient data and controlling patient-monitoring systems.

"If you think you have privacy in the electronic age, you don't," said Jim Simon, owner of cybersecurity consulting firm i.e. LLC, who spent nearly 30 years as a CIA analyst and also formerly served as Microsoft chief strategist for Microsoft's worldwide public sector.

Yet Simon says public awareness of cybersecurity risks still lags, even after the Target breach

and other recent hacking incidents, including intrusions at Citibank and Google.

Simon says he worries most about the danger to ordinary people who have no sense of their vulnerability and who lack access to expertise or assistance if they are victims of identity theft or another form of cybercrime. Police, judges and prosecutors lack training in understanding and responding to such attacks while praiseworthy efforts, notably by the Secret Service's National Computer Forensics Institute are predictably underfunded, he said.

Just as bank robbers used to rob from the rich because that was where the money was, technology has made it lucrative to target the less affluent through massive breaches that steal small, barely noticeable amounts from a massive number of victims.

"There's no one there to help," Simon said. "We're so far behind, it's frightening."

The consensus is the landscape will become scarier still. Internet-security firm McAfee in a 2014 report predicted increasingly sophisticated means of cyber attacks to include "self-deleting malware" that covers its own tracks after subverting a target.

Concerns over escalating attacks are driving growth of technology firms focused on data protection. Dallas-based consulting firm MarketsandMarkets predicts new threats amid the growing use of cloud computing, data centers and mobile technology that will propel the global cybersecurity market to $120 billion by 2017.

The U.S. cybersecurity market will grow by more than 6 percent a year from 2013 to 2018 to reach a value of $65.5 billion, Market Research Media Ltd. forecast in 2013. In a March 2014 story in *Forbes* magazine, FireEye CEO Dave DeWalt said he doesn't see any limit to market opportunities in the cybersecurity space.

CYBER ATTACKS ARE THE "NEW NORMAL."

- MICHAEL DANIEL, WHITE HOUSE CYBERSECURITY COORDINATOR

CYBER ATTACKERS STOLE PERSONAL DATA FROM 70 MILLION TARGET CUSTOMERS IN 2013.

FDA URGES MAKERS OF HEALTH CARE DEVICES TO SAFEGUARD PRODUCTS.

Internet-security firm McAfee in a 2014 report predicted increasingly sophisticated means of cyber attacks to include "SELF-DELETING MALWARE" that covers its own tracks after subverting a target.

Commercial firms are investing in new protection systems, as is the federal government. In addition, Simon said policy and law will provide critical protection. For instance, he thinks secure, encrypted mobile phones could be widely available within a few years as consumers better understand their data theft exposure and create demand for them. But questions over how to balance personal privacy with access to data by law enforcement agencies still must be worked out, he said.

More rigorous hiring procedures can deter attempts to mine customer data from inside companies, while better analysis of supply chains is another element of addressing vulnerabilities, Simon said.

"It's a policy problem more than a technology problem," he said. "It's going to take a major disaster to work out the line between privacy and security."

In any case, solutions will need to evolve to keep pace with attacks.

"Every time technology advances, attacks increase," Simon said. **EQ**

THE U.S. CYBERSECURITY MARKET WILL GROW BY MORE THAN 6% A YEAR.

Market Research Media Ltd.
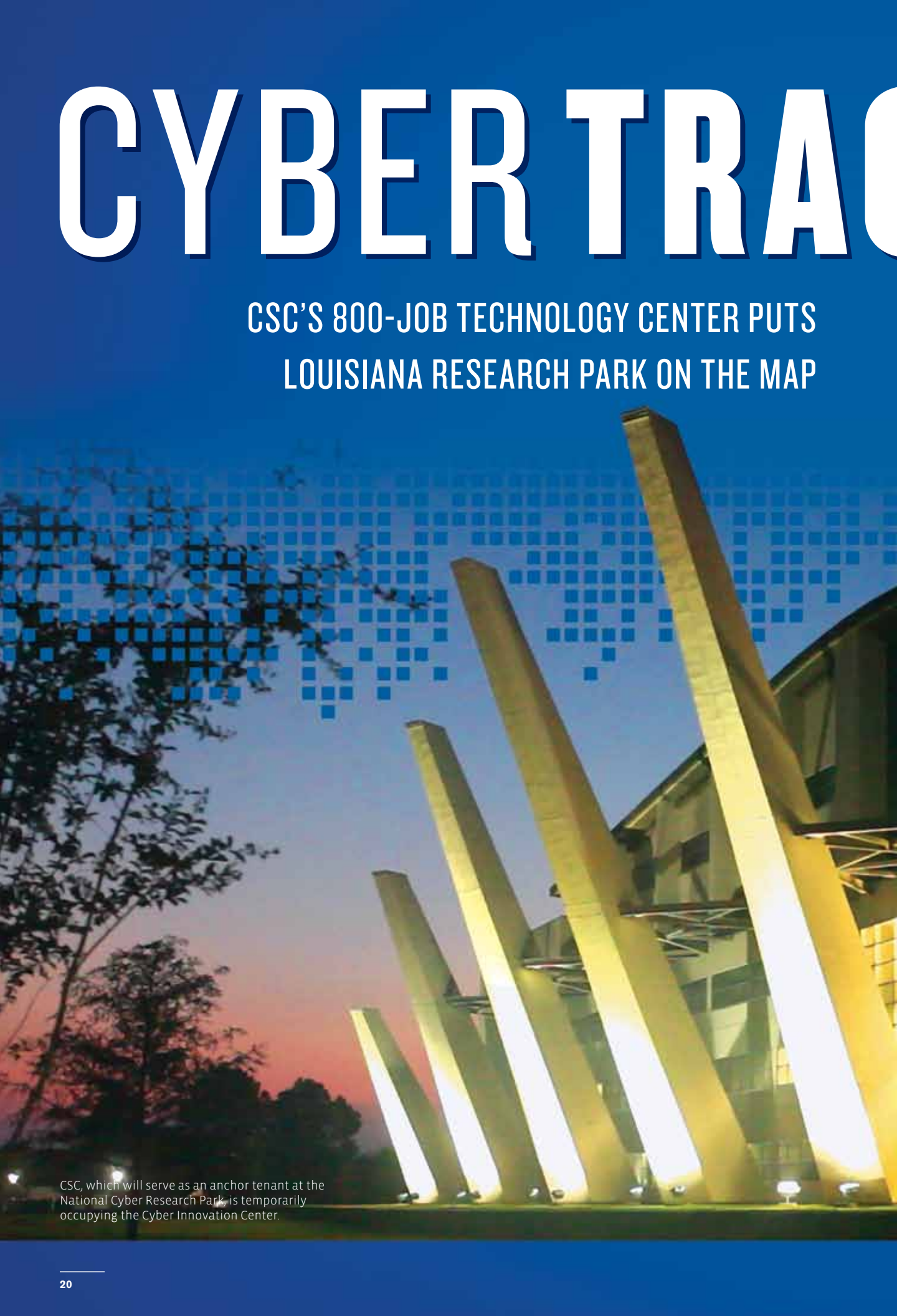
U.S. CYBERSECURITY MARKET SHOULD REACH $65.5 BILLION BY 2018.

Market Research Media Ltd.

CYBER TRAC

CSC'S 800-JOB TECHNOLOGY CENTER PUTS
LOUISIANA RESEARCH PARK ON THE MAP

CSC, which will serve as an anchor tenant at the
National Cyber Research Park, is temporarily
occupying the Cyber Innovation Center.

CTION

I n 2008, the State of Louisiana, Bossier City and Bossier Parish invested $107 million to launch a landmark cyber research park in Northwest Louisiana. It was a bold move in a part of the country known more for oil and gas and agribusiness, but state and local leaders believed the region had the potential to become a cyber industry hub. That venture is part of the region's growing role in the technology industry.

Local assets included Barksdale Air Force Base, also in Bossier City, and Louisiana Tech University in nearby Ruston. Combining the nation's most competitive business operating costs with an affordable cost of living and attractive quality of life, Louisiana positioned the region as an alternative to established cyber centers in more expensive markets, such as Washington, D.C.

"We knew we had a good beginning, but we also knew from looking at other research parks like Huntsville, Alabama, that it was going to take time," recalled William Altimus, Bossier Parish Policy Jury administrator. "We committed to the long game, and now we're seeing big payoffs."

The top triumph to date arrived in February 2014 as global IT leader CSC announced its choice of the Bossier City-based National Cyber Research Park for an 800-job, next-generation technology center. Louisiana earned the project following a rigorous site selection process that examined 134 U.S. locations.

The CSC project ranks among the most significant economic development wins in the history of Northwest Louisiana. It's also widely seen as the National Cyber Research Park's tipping point — and one of a growing number of project wins at research parks and corporate campuses throughout the state that are redefining Louisiana as an emerging technology leader.

CYBER INNOVATION

In 2010, Louisiana, Bossier City and Bossier Parish leaders strengthened the foundation for the National Cyber Research Park's success with the opening of the 135,000-square-foot Cyber Innovation Center (CIC). The CIC houses the National Integrated Cyber Education Research Center — the education arm of the CIC that offers collaborative programs advancing technology from kindergarten classes through graduate school research labs — as well as a major data center and a host of cybersecurity contractors, many of which conduct business with the Global Strike Command and other operations at Barksdale Air Force Base.

The CIC has helped attract divisions of Boeing, Northrop Grumman and Lockheed Martin to the research park, in addition to data centers and technology support firms. The common thread is building a next-generation workforce skilled at providing cyber solutions.

CSC will occupy 40,000 square feet of temporary space at the park's Cyber Innovation Center while a more than $39 million permanent CSC home is completed. That 116,000-square-foot center will become the private-sector anchor of the 3,000-acre National Cyber Research Park when it opens in late 2015. CSC, which generates $13 billion in annual revenue, will serve federal and commercial customers with cloud computing, big data, application modernization and other technology services.

"The announcement is huge," CIC Executive Director Craig Spohn said. "It validates what we committed to a long time ago: the true diversification of our regional economy."

The CSC technology center will accelerate development of the research park, bringing

CSC'S LOUISIANA SITE WILL DEVELOP APPLICATIONS THAT HELP CLIENTS SOLVE TECHNOLOGY CHALLENGES WITH SOPHISTICATED SOLUTIONS.

> ## "THIS PARTNERSHIP BRINGS THE BENEFIT OF EDUCATION, TECHNOLOGY, WORKFORCE, ECONOMIC DEVELOPMENT AND ULTIMATELY COMMUNITY."
>
> **DAVE ZOLET**
> CSC EXECUTIVE VICE PRESIDENT

In February 2014, CSC executives announced the choice of Bossier City for the company's 800-job technology center.

800 professional positions and the extensive resources of a Fortune 500 technology leader with proven global project success. CSC has modernized one of the world's largest supply chains and streamlined logistics for a major branch of the U.S. Armed Forces, designed and implemented a precision dispatching system for a major railway and managed the world's largest insurance application services program.

Similarly, CSC's Louisiana site will develop applications that help clients solve technology challenges with sophisticated solutions. As the research park's anchor tenant, CSC is expected to attract more cyber sector investment in Northwest Louisiana.

Spohn said CSC's decision puts the research park on the map for technology companies eager to expand in an affordable, growing market.

"We're showing how serious we are about developing a cyber sector," he said. "With this announcement, more companies will take note of the region's competitive advantages."

CSC executive vice president, Dave Zolet credited Louisiana's powerful combination of higher education partnerships, workforce advantages and incentives. A $14 million state-funded initiative, for instance, led by Louisiana Tech University in

Ruston, will expand programs and quadruple the number of degrees awarded annually in computer science and information systems while cementing Louisiana Tech's cyber engineering program as the best of its kind in the nation.

"There was a willingness of the state, city, parish and local educational community to partner on developing a next-generation IT workforce," Zolet said. "And we appreciated the close proximity of Barksdale Air Force Base, which provides an opportunity for us to hire and train military veterans. Other incentives included a new facility, major investment in local universities and colleges, reimbursement for recruitment, relocation and training, and the ability to leverage Louisiana's tax incentives."

Originally, the company planned 256 jobs for its expansion, but Louisiana Economic Development officials offered a competitive package that targeted 800 positions.

"After evaluating the market and seeing the commitment of the state, parish and city officials, we decided that 800 jobs was achievable," Zolet said.

The full complement of workers will be in place by 2017.

WE'RE SHOWING HOW SERIOUS WE ARE ABOUT DEVELOPING A CYBER SECTOR. WITH THIS ANNOUNCEMENT, MORE COMPANIES WILL TAKE NOTE OF THE REGION'S COMPETITIVE ADVANTAGES."

CRAIG SPOHN
EXECUTIVE DIRECTOR, CYBER INNOVATION CENTER

TECHNOLOGY TREND

CSC is but one signature example of how Louisiana has established a technology trend linking innovative, global companies to research universities and regional workforce talent in the state.

An earlier example came with custom solutions created by the state to retain the corporate headquarters of CenturyLink in Monroe, where the Fortune 500 company announced expansion and retention projects with the state in 2009 and 2011 following major mergers with Embarq and Qwest.

The combined projects will increase CenturyLink's Monroe-area employment by 1,150 positions to nearly 3,000 people overall. The company will complete a new 250,000-square-foot CenturyLink Center of Technology Excellence in 2014 that will house 800 employees and spark telecommunications solutions for clients.

A strategic part of CenturyLink's expansion package included Louisiana's funding of a $2.1 million, seven-year telecommunications endowed chair and technology curricula at Louisiana Tech, a Tier 1 national research university.

"The state has stepped up to make Louisiana more business-friendly, and we appreciate their efforts and the incentives being put forth,"

CenturyLink CEO Glen Post said. "Our people are the engine that drives our success, and we will continue to add jobs and training to enhance the quality of the workforce."

In New Orleans, the state attracted GE Capital's 300-job IT Center of Excellence in 2012 with a growing concentration of technology talent in Louisiana's largest city and an incentive package that included $500,000 a year for a decade to fund software apprentice programs led by the University of New Orleans. Students in training obtain actual experience solving IT challenges for GE Capital's companywide financial services network. They also receive university credit and competitive wages of $15 to $17 an hour. The company gains a level of technology workforce integration unsurpassed by any program in the nation, said Mike De Boer, GE Capital's chief information officer at its Technology Center in New Orleans.

"That, I think, is unique," De Boer told The Times-Picayune of New Orleans.

The game-changing trend continued in Baton Rouge — with IBM's 2013 announcement that it will operate an 800-job technology center downtown — and in Lafayette, where CGI will develop a 400-job technology center at the University of Louisiana at Lafayette (UL Lafayette).

AMPLIFYING ASSETS

Louisiana's highly customized recruitment of technology firms takes existing assets — downtown infrastructure, campus-based research parks, award-winning workforce programs — and amplifies them to woo employers unaccustomed to such powerful site solutions.

After Gov. Bobby Jindal and his Louisiana Economic Development leadership took office in 2008, they quickly identified software development and digital media as a top industry target for the state. Within months, the first major coup emerged with Electronic Arts (EA) selecting a campus of Baton Rouge-based Louisiana State University (LSU) to open its North American Test Center for video games.

Originally slated for 220 jobs, EA grew the center to 400 positions as it occupied the newly built 94,000-square-foot Louisiana Digital Media Center on LSU main campus in early 2013. The company anticipates growth to as many as 600 jobs at peak seasons in its business cycle. Joining EA at the facility are LSU's Center for Computation & Technology and the university's AVATAR curriculum (Arts, Visualization, Advanced Technologies And Research), which provide faculty and students an immersive experience in high-speed computing and digital media applications.

In April 2014, Louisiana again leveraged higher education assets by recruiting CGI's 400-job technology center to the 143-acre UL Lafayette Research Park. The university's School of Computing and Informatics initiated the nation's first master's degree in computer science in 1962, and a year earlier the first student chapter of the world's largest computing society — the Association for Computing Machinery — was established at UL Lafayette.

Today, UL Lafayette's computer science programs, faculty and students engage in advanced research to support private sector solutions for big data and cybersecurity challenges, the same kind of work CGI will pursue at its Lafayette technology center.

CGI and the university will partner in a 10-year, $4.5 million higher education initiative that will triple the number of undergraduate degrees awarded yearly by the School of Computing and Informatics. By the end of 2015, CGI will move into a new 50,000-square-foot, $13.1 million technology facility at the UL Lafayette Research Park.

"Our partnership with Lafayette represents a groundbreaking model for CGI, bringing together the local community to identify opportunities for innovation that can be applied globally while tapping the talent and resources of Louisiana," said Dr. James Peake, president of the company's CGI Federal business unit.

Since 2008, employment in Louisiana's software development and digital media sector has grown 24 percent — based on U.S. Bureau of Labor Statistics data — and recent project wins such as CenturyLink, CGI, CSC, EA, Gameloft, GE Capital, IBM and others are contributing more than 4,500 new professional jobs in technology across the state.

Louisiana, however, isn't standing pat on its recent technology success. A new program approved by the Louisiana Legislature in 2014 called Workforce Innovation for a Stronger Economy will supply $40 million a year on a performance basis to colleges that produce more graduates in high-demand fields and attract private investment from employers in those fields. The focus will be on jobs requiring skills in science, technology, engineering and mathematics.

"UL Lafayette has been establishing public-private partnerships, we've been committed to economic development, and our university is among the Top 10 in the U.S. for the percentage of National Science Foundation research expenditures funded by business," UL Lafayette President Joseph Savoie said. "This new $40 million investment by the state is a positive step to foster further innovation by higher education." **EQ**

AN EMERGING
SOFTWARE DEVELOPMENT HUB

In February 2014, CSC selected Louisiana for the company's next-generation technology center. The 800-job facility will become the anchor tenant of the National Cyber Research Park in Bossier City. A Fortune 500 company, CSC will leverage its partnership with the state and local communities to develop a next-generation IT workforce and agile facility for supporting and advancing technologies that meet and exceed client needs. CSC is occupying space within the Cyber Innovation Center in Bossier City until its new facility is completed in mid-2015. A $14 million higher education initiative funded by the State of Louisiana will be led by Louisiana Tech University and increase the number of graduates in computer science, cyber engineering and related disciplines.

In April 2014, CGI selected Lafayette for the establishment of a 400-job technology center. The center will become an anchor tenant of the University of Louisiana at Lafayette's Research Park and will develop complex business and IT solutions for clients seeking services from a technology partner that shares a common time zone, language and understanding of client business operations. A $4.5 million higher education initiative led by the university will result in a tripling of the number of undergraduate degrees awarded annually by the computer science program.

In 2008, Electronic Arts (EA) opened a test center in Baton Rouge — one of only two in the world. More than 400 software testers and support staff converge in one Louisiana location to maximize the company's quality assurance activities. In 2012, EA moved into the newly constructed 94,000-square-foot Louisiana Digital Media Center on the main Louisiana State University campus. Game testers at the center coordinate work on a daily basis with studios across the globe, including Stockholm, London and Bucharest.

In 2013, IBM announced the development of a new 800-job technology center in Baton Rouge to meet demand for data-intensive applications, such as software development, application management services, financial regulatory services, mobile accessibility and cloud computing. The technology center — part of a $55 million urban complex in downtown Baton Rouge — broke ground in September 2013. Operating out of temporary space until the center's completion, the company already has hired more than 100 employees. A $14 million higher education initiative with Louisiana State University will significantly expand the number of annual graduates in computer science and other quantitative-intense fields to support the project.

Louisiana's unique software development and technology advantages are attracting industry leaders to open new development centers, expand divisions, deliver testing facilities and relocate operations to Louisiana.

In March 2013, CenturyLink broke ground on a 250,000-square-foot Technology Center at its corporate headquarters in Monroe. In the past five years, the Fortune 500 technology company completed acquisitions that will increase its Monroe-area employment by 1,150 to a total of 2,600 employees. The new telecommunications facility will feature technology research and development lab space and a network operations center, as well as additional office space designed to meet future growth.

In 2011, Gameloft selected New Orleans for a game development studio that will grow to nearly 150 jobs. At the studio's one-year anniversary, Gameloft announced the completion of Cosmic Colony — the first game to be developed at the New Orleans studio. With the successful first year completed, Gameloft announced plans to launch two additional projects, along with work on games currently in the company's catalogue of products.

To strengthen support for its financial products and customer functions, GE Capital announced the creation of the GE Capital IT Center of Excellence in New Orleans in 2012. The center will grow to 300 high-quality technology jobs and serve as a major resource for GE Capital employees across the nation. GE Capital now occupies 60,000 square feet of office space in the New Orleans Central Business District and already employs more than 150.

Geocent is a small business that provides innovative software engineering, data center and core infrastructure, technology consulting and engineering, and scientific support to commercial, aerospace, defense, maritime, financial, health care, energy, and federal, state and local government customers. Geocent is headquartered in Metairie and has offices in Charleston, South Carolina; Huntsville, Alabama; Stennis Space Center, Mississippi; New Orleans; Baton Rouge; and Tulsa, Oklahoma.

Globalstar Inc. deploys satellite communication systems and develops the software that powers mobile voice and data services used by customers in 120 nations. In 2010, Globalstar moved its headquarters and research and development operations from California to Covington. In 2013, the company announced the completion of an effort to design, build and launch the most modern satellite constellation available for mobile voice and data use.

Sampling Success

Online research firm thrives in New Orleans

Major brands routinely poll sample audiences in online surveys, and they often hire firms to deliver sample data, such as: yogurt-buying habits of 1,000 West Coast women in the 25- to 54-year-old age bracket. In that online space, New Orleans-based Federated Sample has emerged as a major player through its flagship Fulcrum software.

Federated Sample delivers efficient, transparent, automated results to the industry by directly connecting buyers and sellers. CEO Patrick Comer uses an analogy to describe what his company leverages with Fulcrum.

"Years ago, if you were planning to fly somewhere," he explained, "you could contact a travel agency to purchase tickets or search each airline to compare prices. At Federated, we built 'Expedia.' We have a centralized platform to find the sample information you need in one place. Our clients love it because it's easy and the end-users are assured the information is accurate."

In 2013 alone, more than 200 supply partners in 65 countries delivered approximately 10 million samples using the Fulcrum platform.

Comer and Federated Sample's history is certainly a tech story success. He worked in Los Angeles for OTX Research, one of the nation's largest online sample brokers. After discovering the company would be acquired, Comer left to develop and

> "Through research, I knew that the New Orleans market had the resources and talent to support a tech company like Federated Sample."

Patrick Comer, CEO, Federated Sample

market his own sampling software to brokers and agents. The Alabama native could have opened shop anywhere but chose to move back to the South and New Orleans, where his wife grew up.

In 2010, Comer launched Federated Sample with $350,000 in seed money and hired 10 people his first year. In 2011, he raised more than $2 million in new investment capital and leveraged Louisiana's Angel Investor Tax Credit, which offers up to a 35 percent tax credit on early-stage capital funded by accredited investors. In March 10, 2014, the company celebrated its fourth anniversary with 50 employees.

"Through research, I knew that the New Orleans market had the resources and the talent to support a tech company like Federated Sample," Comer said. "Four years later, we are proud to be playing

a huge role in supporting the growing technology community in the city and state."

Comer is impressed by what he's seen in Louisiana the past five years. California firms are now recruiting in New Orleans, but local companies like Federated Sample are able to offer candidates competitive salaries. The pay, combined with Louisiana's culture and affordable cost of living, is attracting out-of-state tech talent while convincing highly talented locals to value their home.

"There is a very strong sense of community here in New Orleans and that is ingrained in the technology sector, too," Comer said. "It's another one of the places in Louisiana where we are seeing 'brain gain' and I look for this to continue to grow." **EQ**

DATA DRIVEN

In 12 years, Louisiana's premier data center provider hasn't experienced a second of downtime

Some of the nation's leading employers rely upon Venyu for secure data storage and access, and that's a responsibility that keeps the Louisiana technology company ever vigilant.

Venyu, Louisiana's premier commercial data center firm, provides cloud hosting, cloud backup, managed hosting, disaster recovery and business continuity services. The company's Baton Rouge location serves as the flagship data center and was recently expanded to provide additional space and power density. The Bossier City data center meets extraordinary U.S. Department of Defense anti-terrorism force protection codes, making it one of the most physically secure commercial facilities in the nation. Venyu's multiple locations also provide clients an option for geographic diversity and redundancy protection from natural disasters.

"We have as fine a data center as you will find anywhere in the country," Venyu CEO Scott Thompson said. "Our clients include seven NFL franchises, Dole Foods, Lamar Advertising, ICF International, Kawasaki and multiple state agencies. In the 12 years we have operated the facility, we've never had one second of downtime, which is pretty remarkable."

Today, more companies forgo in-house servers by partnering with companies like Venyu to reduce IT costs while increasing security and scalability. Recently, a multimillion-dollar company weighed the option of expanding its campus data center

or partnering with Venyu. Cost was a clear factor in choosing not to build in-house. According to Thompson, catching a company before a new build or expansion can offer significant cost savings.

"Let's say a company is looking to move to Baton Rouge," Thompson explained. "By partnering with us prior to build-out, they don't have to develop an in-house data center, which includes special HVAC needs, backup generators, uninterruptible power supply and security, all of which must run 24/7/365. It works out to be a cost savings of somewhere between $1,500 and $2,500 per square foot, which is very appealing to most any company."

One of Venyu's strengths is the blend of services it offers customers. Though many companies provide only co-location or cloud hosting, Venyu can combine services to accommodate where a company might be in its IT infrastructure life cycle.

"When we first began working with Lamar Advertising in 2006, they chose a co-location option, which still allowed them to purchase and maintain their own specialized IT systems," said Matt Wallace, Venyu's vice president of marketing. "As they have deployed new servers for their digital billboards, they began converting to our cloud hosting service. They don't have to invest in hardware procurement or worry about security or service failure. Over time, most people end up letting us handle the infrastructure because it's so much easier and more cost-effective."

As more businesses explore data center options, Venyu stands as a premier resource, not only in Louisiana but across the nation.

"People tapping on their smartphones or working on computers have no idea the incredible amount of infrastructure that supports them," said Thompson. "I'm proud to say that we have one of those facilities here in Baton Rouge, and that is impressive." **EQ**

CLOUD HOSTING

CLOUD BACKUP

MANAGED HOSTING

DISASTER RECOVERY

BUSINESS CONTINUITY SERVICES

Mike De Boer

As chief information officer for the GE Capital Technology Center in New Orleans, Mike De Boer has led the company's establishment of the center since 2012. He oversees all facets of the company's new 70,000-square-foot Center of IT Excellence located in the city's Central Business District.

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EQ: What is the focus of GE Capital's new technology center in New Orleans?

De Boer: The center is being built to provide vital services to our customers in the areas of security, storage and cloud computing, and software development and engineering capacity. It's part of a broader initiative of delivering those products and services to our customers in the best possible way.

EQ: What was the most important factor in GE Capital's decision to site its technology center in New Orleans?

De Boer: What was most important was the state's flexibility in putting together a program that matched our needs. Louisiana's incentives are important, but the thing that really came to bear in our decision was the state's flexibility in understanding and then designing what we needed for the center to succeed.

EQ: So that sort of flexibility is unusual?

De Boer: Yes, absolutely. And flexibility is possible only because of the high degree of collaboration between partners at all levels in the state. In Louisiana, you see efforts in the state Legislature aligning with what state and local economic developers and universities are doing to create jobs and promote growth. That level of collaboration is rare, and it is powerful in getting things done. It creates momentum, and momentum creates opportunities to grow the workforce.

EQ: Tell us about GE Capital's growth since coming to Louisiana.

De Boer: We have 180 people in New Orleans, so we are well on our way to 300 employees by the end of 2015.

EQ: So you are finding the skilled IT workforce you need to grow?

De Boer: We are having success in finding local talent in New Orleans, and we are also recruiting talent from other areas of Louisiana and out of state. It's a healthy combination. We're hiring locally and also bringing new talent to the city with specialized skills that are in high demand.

EQ: How does your alliance and internship program with the University of New Orleans (UNO) work as a strategic advantage for GE Capital?

De Boer: The UNO partnership is critical because it means that we have a pipeline of employees, while UNO students are getting a two-year head start on the competition in entering the job market with significant experience in software development.

EQ: Does the tech sector's overall growth in New Orleans and the state benefit GE Capital?

De Boer: We are excited when we see announcements like CSC in North Louisiana and IBM in Baton Rouge. Having more technology employers in the area means more skills and more talent. Everybody benefits. Growth helps everybody. **EQ**

COMPETITIVE EDGE

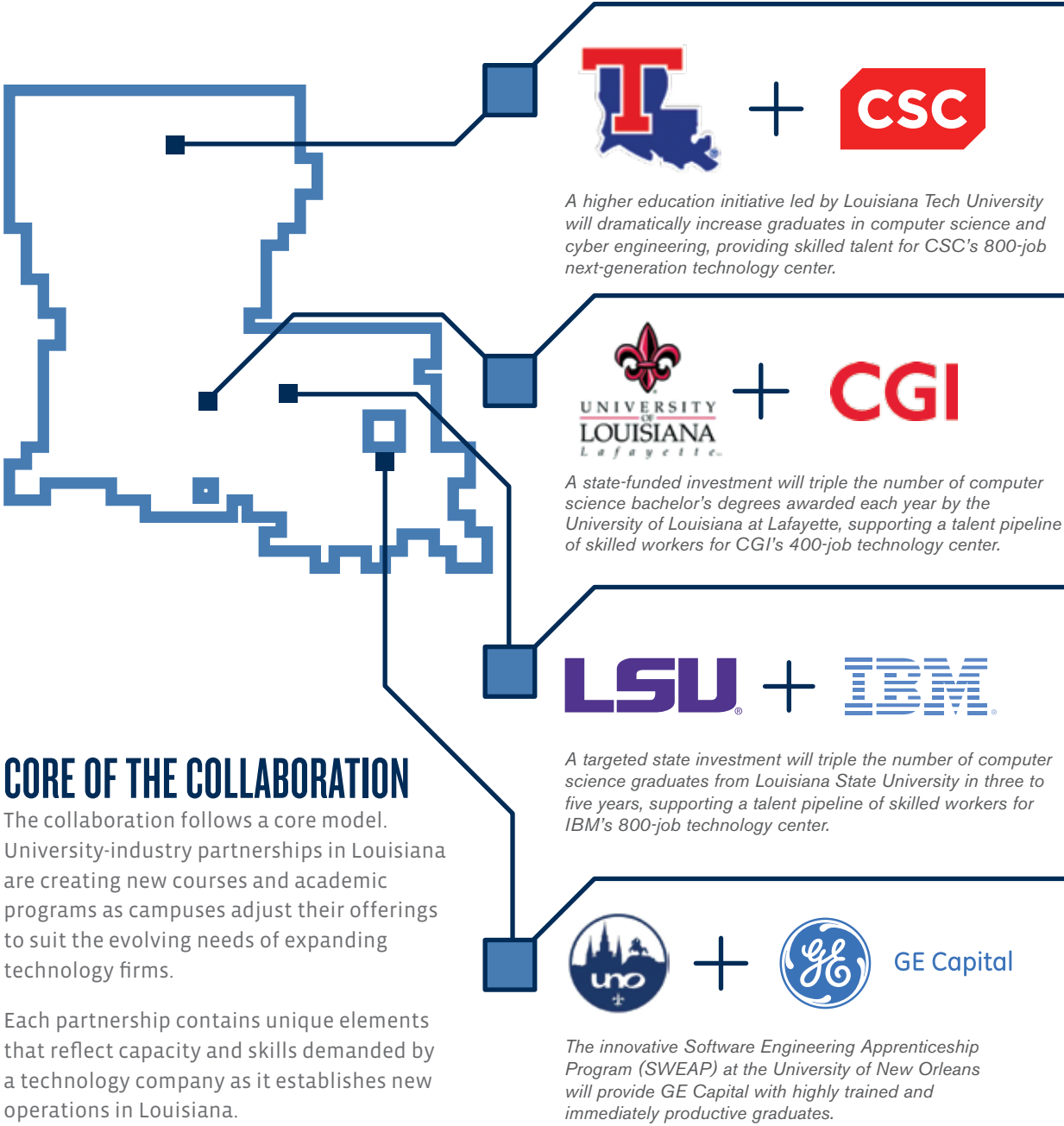## LOUISIANA'S HIGHER EDUCATION PARTNERSHIPS ATTRACT MAJOR TECHNOLOGY COMPANIES

As a catalyst for growth, Louisiana's creation of powerful partnerships between universities and private employers continues to deliver results in the global search for highly skilled workforce talent.

The trend is particularly visible in Louisiana's fast-growing technology sector, where recently announced projects will create more than 3,000 new software development and information technology jobs over the next four years.

Firms that choose Louisiana for technology projects describe the state as a pioneer in the use of such training partnerships. And those firms — CGI, CSC, GE Capital, IBM and others — repeatedly point to the opportunity to collaborate with higher education partners as a critical component of their site-selection decisions.

University-industry partnerships empower Louisiana campuses to make meaningful changes to the training and education of their students, ensuring that graduates are optimally prepared for life beyond the college campus. For software and IT firms, the benefit is a bigger pipeline of employees possessing the precise skills they demand.

The model takes its cue from the traditional apprenticeship models of years, sometimes centuries, past. But it's a re-emerging trend updated to reflect the needs of Louisiana technology companies that are forging solutions to emerging challenges faced by businesses in every industry.

A higher education initiative led by Louisiana Tech University will dramatically increase graduates in computer science and cyber engineering, providing skilled talent for CSC's 800-job next-generation technology center.

A state-funded investment will triple the number of computer science bachelor's degrees awarded each year by the University of Louisiana at Lafayette, supporting a talent pipeline of skilled workers for CGI's 400-job technology center.

A targeted state investment will triple the number of computer science graduates from Louisiana State University in three to five years, supporting a talent pipeline of skilled workers for IBM's 800-job technology center.

The innovative Software Engineering Apprenticeship Program (SWEAP) at the University of New Orleans will provide GE Capital with highly trained and immediately productive graduates.

CORE OF THE COLLABORATION

The collaboration follows a core model. University-industry partnerships in Louisiana are creating new courses and academic programs as campuses adjust their offerings to suit the evolving needs of expanding technology firms.

Each partnership contains unique elements that reflect capacity and skills demanded by a technology company as it establishes new operations in Louisiana.

One of the state's newest technology projects underscores the trend. In early 2014, CGI, a global IT company, announced it would establish a technology center at the University of Louisiana at Lafayette (UL Lafayette) Research Park, a project that will create 400 new positions. Economic development officials estimate the project will result in an additional 405 new indirect jobs, for a total of more than 800 new permanent jobs in Acadiana.

The project includes a state-funded, $4.5 million higher education investment designed to triple the number of computer science bachelor's degrees awarded each year by UL Lafayette.

But the partnership is broad-based and extends well beyond expanding a regional pipeline of tech talent. UL Lafayette will facilitate partnerships between CGI and the Louisiana Immersive Technology Enterprise — a 3-D visualization research center — on projects CGI is pursuing, explained Ramesh Kolluru, vice president for research at UL Lafayette. And the university will look for ways to tap CGI's capabilities as a strategic advantage in pursuing projects of its own, he said.

"We will help each other compete for projects more effectively," Kolluru said.

> **Through strategic partnerships and investments, the computer science programs at Louisiana State University, Louisiana Tech University, University of Louisiana at Lafayette and the University of New Orleans will rank among the Top 25 such programs nationally by 2020 for degrees awarded annually.**

The university will develop a series of professional certifications and short courses for new and existing employees at CGI and other regional tech firms in such areas as big data analytics and cloud computing, he said.

Another element of the UL Lafayette-CGI partnership will highlight innovation itself. The 50,000-square-foot, $13.1 million building that the state will fund for CGI at UL Lafayette's Research Park will include an innovation center that will showcase innovative technology developed by CGI and its research partners at UL Lafayette.

CGI has partnered with colleges and universities elsewhere, but the innovation center at UL Lafayette will be unique, said Mark Eschle, a CGI vice president. It will give the company a place to share its solutions with clients from across the nation.

"The goal is a direct partnership that will allow us to bring research to bear on the challenges our clients face," Eschle said. "It's an excellent opportunity to demonstrate to clients how you can innovate with technology."

Across Louisiana, collaboration on curriculum and real-world challenges is driving other university-industry partnerships tied to technology projects.

SPURRING TECHNOLOGY INTEREST

In Baton Rouge, where IBM will establish a technology solutions center that will employ 800 professionals, Louisiana State University will triple its work-ready, computer science graduates with the help of a $14 million, 10-year state education initiative.

The university's College of Engineering aims to increase the number of computer science graduates through initiatives such as the "Geaux Digital Louisiana" consortium, a statewide program to promote interest in technology-related careers among high school students.

In Northwest Louisiana, CSC is partnering with Louisiana Tech University to ensure the university's graduates are equipped for working at the company's new 800-job technology center in Bossier City, where CSC will create solutions in cloud computing, cybersecurity and technology consulting.

Dave Zolet, CSC executive vice president, said the opportunity to partner with Louisiana Tech and nearby colleges was critical in the company's selection of Bossier City among 133 competing U.S. sites.

Louisiana Tech's leadership in cyber engineering and its cooperative-educational agreements with nearby Barksdale Air Force Base were especially compelling, he noted.

Having the opportunity to help shape the university's curriculum means "the ability to develop a next-generation workforce with skills that are transferable and capable of supporting our global customer base," Zolet said.

In New Orleans, where GE Capital is establishing a 300-job technology center, students at the University of New Orleans (UNO) are taking part in a pioneering internship program. Participants in UNO's state-funded Software Engineering Apprenticeship Program get hands-on experience in every phase of projects that may last eight or nine months, explained Mike De Boer, the GE Capital Technology Center's chief information officer.

"The interns have a chance to directly impact GE products and services," De Boer said. "The program is a reflection of the state's commitment to investing in aligning the university curriculum with what the IT sector needs." **EQ**

LOUISIANA
INCENTIVE SNAPSHOT

ECONOMIC INCENTIVES FOR BUSINESSES OF ALL SIZES

▶ **COMPETITIVE PROJECTS PAYROLL INCENTIVE**
Provides a payroll rebate of up to 15% in target sectors for up to 10 years, and either a 4% sales/use tax rebate on capital expenditures or a facility expense rebate equal to 1.5% of qualifying expenses

▶ **COMPETITIVE PROJECTS TAX EXEMPTION**
Provides a 10-year property tax abatement in selected parishes on qualifying capital investments of at least $25 million in targeted non-manufacturing industry sectors. The abatement is for the ad valorem taxes in excess of $10 million or 10% of the fair market value of the property, whichever is greater

▶ **CORPORATE HEADQUARTERS RELOCATION PROGRAM**
Provides a rebate of up to 25% of facilities and relocation costs, to be claimed in equal parts over five years

▶ **CORPORATE TAX APPORTIONMENT PROGRAM**
Provides single-sales factor apportionment to highly competitive projects in order to secure jobs and business investment in target industry sectors

▶ **DIGITAL INTERACTIVE MEDIA AND SOFTWARE DEVELOPMENT INCENTIVE**
Provides a 35% tax credit for Louisiana resident labor expenditures and a 25% refundable tax credit on qualified production expenditures

▶ **ENTERPRISE ZONE PROGRAM**
Provides a one-time $2,500 tax credit per certified net new job, and either a 4% sales/use tax rebate on qualifying expenses or an investment tax credit equal to 1.5% of capital expenditures, excluding tax-exempted items

▶ **INDUSTRIAL TAX EXEMPTION**
Provides a 100% property tax abatement for up to 10 years on manufacturer's qualifying capital investments

▶ **LED FASTSTART®**
Provides workforce recruitment, screening and training to eligible new and expanding Louisiana companies at no cost

▶ **MOTION PICTURE INVESTOR TAX CREDIT**
Provides a tax credit of 30% on qualified production expenditures and an additional 5% tax credit for Louisiana resident labor expenditures

▶ **MUSICAL AND THEATRICAL PRODUCTION TAX INCENTIVE**
Provides a tax credit of up to 35% on qualified production or infrastructure development expenditures; additional credits available for payroll and transportation expenditures

▶ **QUALITY JOBS**
Provides a 5% or 6% rebate on annual payroll expenses for up to 10 years, and either a 4% sales/use tax rebate on capital expenditures or an investment tax credit equal to 1.5% of qualifying expenses

▶ **RESEARCH AND DEVELOPMENT TAX CREDIT**
Provides up to a 40% tax credit for Louisiana businesses (based on employment) that conduct research and development activities in Louisiana

▶ **RESTORATION TAX ABATEMENT**
Provides a five-year 100% property tax abatement for the rehabilitation of an existing structure based on assessed valuation of property prior to beginning of improvements

▶ **SOUND RECORDING INVESTOR TAX CREDIT**
Provides a 25% refundable tax credit on qualified expenditures for sound recording productions

▶ **TECHNOLOGY COMMERCIALIZATION CREDIT AND JOBS PROGRAM**
Provides a 40% refundable tax credit on costs related to the commercialization of Louisiana technology and a 6% payroll rebate for the creation of new direct jobs

SPECIAL INCENTIVES FOR SMALL BUSINESSES

▶ **ANGEL INVESTOR TAX CREDIT**
Provides a tax credit of up to 35% for individual investors when they invest in early-stage, wealth-creating businesses

▶ **ECONOMIC GARDENING INITIATIVE**
Provides Louisiana-based small businesses with accelerated technical assistance and research from an experienced national economic gardening team

▶ **SMALL BUSINESS LOAN PROGRAM**
Provides up to 75% loan guarantees to facilitate capital accessibility

▶ **VETERAN INITIATIVE**
Provides veteran-owned and disabled, service-oriented, small businesses with greater potential for access to state procurement and public contract opportunities

For more information on Louisiana's incentives visit **OpportunityLouisiana.com.**

SHREVEPORT/BOSSIER

MONROE

8

7

Regions & Partners

6

ALEXANDRIA

BATON ROUGE

3

2

5

4

NEW ORLEANS

LAKE CHARLES

1

LAFAYETTE

HOUMA/THIBODAUX

REGION	REGIONAL ECONOMIC DEVELOPMENT ORGANIZATION	REGIONAL HUB
1. BAYOU	South Louisiana Economic Council	Houma/Thibodaux
2. SOUTHEAST	Greater New Orleans Inc.	New Orleans
3. CAPITAL	Baton Rouge Area Chamber	Baton Rouge
4. ACADIANA	Acadiana Economic Development Council	Lafayette
5. SOUTHWEST	Southwest Louisiana Economic Development Alliance	Lake Charles
6. CENTRAL	Central Louisiana Economic Development Alliance	Alexandria
7. NORTHEAST	Northeast Louisiana Economic Alliance	Monroe
8. NORTHWEST	North Louisiana Economic Partnership	Shreveport/Bossier

Louisiana has an extensive network of economic development organizations and allies dedicated to helping our communities attract, grow and maintain business in our state.

1. Bayou Region

- Assumption Chamber of Commerce
- Chamber of Lafourche and the Bayou Region
- Houma-Terrebonne Chamber of Commerce
- Lafourche Parish Economic Development
- South Central Industrial Association
- St. Mary Chamber of Commerce
- St. Mary Economic Development
- St. Mary Industrial Group
- Terrebonne Economic Development Authority
- Thibodaux Chamber of Commerce

2. Southeast Region

- Jefferson Parish Economic Development Commission
- New Orleans Business Alliance
- Plaquemines Association of Business & Industry
- St. Bernard Parish Economic Development Foundation
- St. Charles Parish Department of Economic Development & Tourism
- St. James Parish Department of Economic Development
- St. John the Baptist Parish Department of Economic Development
- St. Tammany Economic Development Foundation
- Tangipahoa Economic Development Foundation
- Washington Economic Development Foundation

3. Capital Region

- Ascension Economic Development Corporation
- City of Baton Rouge/ East Baton Rouge Parish
- East Feliciana Parish Economic Development
- Greater Pointe Coupee Chamber of Commerce
- Iberville Chamber of Commerce
- Livingston Economic Development Council
- St. Helena Parish Economic Development Committee
- West Baton Rouge Chamber of Commerce
- West Feliciana Parish Community Development Foundation

4. Acadiana Region

- Crowley Chamber of Commerce
- Evangeline Parish Industrial Board
- Iberia Industrial Development Foundation
- Lafayette Economic Development Authority
- St. Landry Parish Economic Industrial Development District
- St. Martin Economic Development Authority
- Vermilion Chamber of Commerce

5. Southwest Region

- Calcasieu Parish Planning and Development
- Chennault International Airport Authority
- City of Lake Charles Planning and Economic Development Department
- DeQuincy Chamber of Commerce
- DeQuincy Economic Commission
- Greater Beauregard Chamber of Commerce
- Jeff Davis Business Alliance
- Jeff Davis Parish Office of Economic Development
- Jennings Main Street
- Kinder Louisiana Chamber of Commerce
- Lake Charles Downtown Development Authority
- Lake Charles Regional Airport
- Oakdale Area Chamber of Commerce
- Sulphur Industrial Development Board
- The Chamber/SWLA
- The Port of Lake Charles
- West Calcasieu Port, Harbor and Terminal District

6. Central Region

- Alexandria Central Economic Development District
- Alexandria/Pineville Convention and Visitors Bureau
- Alexandria Regional Port Authority
- Avoyelles Parish Port Commission
- Central Louisiana Business Incubator
- Central Louisiana Chamber of Commerce
- Concordia Economic & Industrial Development Board
- Concordia Parish Chamber of Commerce
- England Economic and Industrial Development District
- Greater Alexandria Economic Development Authority
- Greater Vernon Chamber of Commerce
- LaSalle Economic Development District
- North Rapides Business and Industry Alliance
- O.U.T.S.: Olla, Urania, Tullos, Standard Economic Development Board
- Pineville Downtown Development District
- The Rapides Foundation
- Winn Economic and Industrial District

7. Northeast Region

- Bernice Industrial Development Corporation
- Caldwell Parish Industrial Development Board
- Franklin Economic Development Foundation
- Jackson Parish Chamber of Commerce
- Jackson Parish Economic Development
- LA Delta 65 Inc.
- Lake Providence Port Commission
- Monroe Chamber of Commerce
- Morehouse Economic Development Commission
- Rayville Economic Development
- Tensas Revitalization Alliance
- Union Parish Chamber of Commerce
- West Carroll Parish Chamber of Commerce
- West Monroe-West Ouachita Chamber of Commerce

8. Northwest Region

- Arcadia/Bienville Parish Chamber of Commerce
- Bossier Chamber of Commerce
- Caddo-Bossier Port Commission
- City of Natchitoches Economic Development Commission
- Claiborne Chamber of Commerce
- DeSoto Parish Chamber of Commerce
- Greater Bossier Economic Development Foundation
- Greater Shreveport Chamber of Commerce
- Minden-South Webster Chamber of Commerce
- Natchitoches Area Chamber of Commerce
- North Webster Chamber of Commerce
- Red River Parish Chamber of Commerce
- Ruston-Lincoln Chamber of Commerce
- Sabine Parish Chamber of Commerce

In addition to working with these organizations, LED regularly works with municipalities, parishes, police juries and utilities on economic development initiatives.

Statewide partners include:
- American Electric Power/Southwestern Electric Power Company
- Association of Louisiana Electric Cooperatives
- Center for Lean Excellence
- Cleco Corp.
- Entergy Louisiana Economic Development
- Louisiana Association of Planning and Development Districts
- Louisiana Business Incubation Association
- Louisiana Industrial Development Executives Association
- Louisiana Municipal Association
- Louisiana Public Facilities Authority
- Louisiana Small Business Development Center Network
- Manufacturing Extension Partnership of Louisiana
- Police Jury Association of Louisiana
- Ports Association of Louisiana
- Procurement Technical Assistance Center
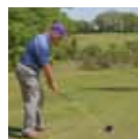
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As Louisiana's unique advantages attract new business, more out-of-state residents are considering a move to the state. To provide core information about cost of living, health care, education, professional organizations, the arts, recreation and more, the state has developed websites highlighting each of Louisiana's eight major regions.

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